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US EPA RECORDS CENTER REGION 5



487392

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

BASF CORPORATION
1609 BIDDLE AVENUE
WYANDOTTE, MICHIGAN

REVISED: APRIL 1994

The BASF Corporation (BASF) complex in Wyandotte, Michigan stores and utilizes oil and petroleum-containing materials on-site during production of industrial chemicals and nutritional products. Normal use of these products is safe and does not create a danger to public health, welfare or the environment. Problems may result, however, from uncontrolled releases (i.e., accidental spills) of these substances.

Accidental discharges of oil and petroleum-containing materials to site soils or the municipal sanitary sewer system could have an adverse environmental impact. Avoiding such releases is far superior to attempting to clean up spills which may cause environmental damage. BASF therefore has established several surveillance procedures designed to detect, prevent, or minimize inadvertent spills of oil and petroleum-containing materials. However, it remains possible that an accidental release (e.g., equipment failure, human error) could occur during on-site transfer of liquids or during loading/unloading operations. These accidental discharges could potentially enter the groundwaters of the site, the public sewer system, or the Detroit River.

The Spill Control and Countermeasures Plan (SPCC) was prepared by BASF to document established procedures designed to prevent spills from occurring at oil storage/use areas at the Wyandotte facility. The plan also outlines specific response procedures which will be implemented in the event that a spill does occur.

The SPCC Plan meets the regulatory requirements outlined in 40 CFR 112. It has been prepared in accordance with applicable Federal guidelines and its implementation is fully supported by site management who has the authority to commit the necessary resources.

FACILITY DESCRIPTION

The subject BASF manufacturing facility is located at 1609 Biddle Avenue, Wyandotte, Michigan and consists of 230 acres in the northern part of the city of Wyandotte adjacent to the Detroit River.

The original manufacturing facility on this site was founded on October 16, 1890 and was known as the Michigan Alkali Company. In 1969, the company and all on-site facilities (which was then known as Wyandotte Chemicals Corporation) were purchased by BASF Aktiengesellschaft (a German corporation). The Wyandotte manufacturing complex is now part of BASF Corporation. Corporate headquarters are located at 8 Campus Drive, Parsippany, New Jersey.

The Wyandotte complex is illustrated in Figure I and consists of the following manufacturing and/or service areas listed below:

- Polymers Plant - manufacture of various urethane polyols
- Vitamin E Plant - production of two grades of Vitamin E, pharmaceutical and animal feed
- Vitamin Powders Plant - production of Vitamin A and E powders
- Elastocell Plant - manufacture of cast polyurethane moldings for various applications
- Expanded Polyolefin Plant - production of plastic materials for various applications
- Engineering Plastics Compounding Plant - production of plastic materials for various applications
- The Corporate Research and Development Laboratories, Urethane Applications and Plastic Application Center
- Polystyrene Pilot Plant - small scale production of high impact polystyrene for R & D purposes
- TPU Synthesis Plant - manufacture of thermoplastic polyurethane elastomers
- Steam Facility - produces steam required for operations throughout the site.
- Administrative office buildings

Three (3) wastewater discharges (Outfall 001, 002, and 003) from the site are authorized under NPDES Permit MI0000540. Industrial Wastewater Discharge Permit #D11311 covers all discharges from the site into the POTW sanitary sewer system.

DESCRIPTION OF STORAGE AREAS

Engineering specifications for all oil storage tanks at the BASF complex require that secondary containment be provided to accommodate 110% of the largest tank in the dike. Table 1 specifies the active petroleum storage areas at the site. Figure 1 shows their locations. Additional information is provided as follows:

- One (1) 150,000-gallon tank for No. 6 fuel oil. (Area A)

The 150,000-gallon tank for the storage of No. 6 fuel oil is located on a concrete pad within a diked enclosure. This oil is used as an alternate fuel for consumption at the boiler system for the complex. Primary fuel for the boilers is natural gas. The tank is equipped with visual and audible alarms to signal high and low levels.

- One (1) 3,000-gallon tank (three 1,000-gallon compartments) for diesel fuel, regular unleaded gasoline, and premium unleaded gasoline. (Area B)

The 3,000-gallon diesel fuel and unleaded gasoline tank is located on a concrete pad within a diked enclosure. This tank has three (3) 1,000-gallon compartments for diesel fuel, unleaded regular gasoline, and unleaded premium gasoline. The diesel fuel is used by the trackmobile which switches railroad cars within the BASF complex. The regular unleaded gasoline is piped directly to the dynamometer building where antifreeze solutions are tested in engines. The premium unleaded gasoline is used in various company vehicles while in operation by BASF personnel.

- One (1) 3,900-gallon tank (three 1,300-gallon compartments) for additive-free gasoline. (Area B)

The 3,900-gallon gasoline tank is located on a concrete pad within a diked enclosure. This tank has three (3) 1,300-gallon compartments for additive-free gasoline. This gasoline is blended with additives and then tested.

- One (1) 350-gallon tank for lube oil. (Area C - Polymers Plant)

The 350-gallon lube oil tank is located inside the Polymers Plant warehouse and contains lubricant for a series of vacuum pumps. The tank is located in diked area free of floor drains.

TABLE 1 - ACTIVE PETROLEUM STORAGE AREAS

Tanks

Unit	Contact	Description			Location	Area On Plot Plan
		Contents	Number Of Tanks	Capacity (K gal)		
Polyols	DHEasley	Lube oil	1	0.35	No. 2 Plant Warehouse	C
Energy Applications	JPOwens	Gasoline	1 (3 compartments)	3.9	Chippewa St., near Dynamometer Bldg.	B
Site Services	KWhitehead	Gasoline and No. 2 Diesel Fuel	1 (3 compartments)	3	Chippewa St., near Dynamometer Bldg.	B
	FCDelisle	No. 6 Fuel Oil	1	150	Steam Facility	A
		No. 2 Diesel Fuel	3	0.7 each	Firewater Pond	E

Indoor Drum Storage Areas

Unit	Contact	Location	Contents	Number Of 55-Gal Drums	Area On Plot Plan
Energy Applications	JPOwens	Blend Bldg.	Gasoline	6	B
		Dynamometer Bldg.	Motor Oil	1	B
Automotive Products	SMZeld	Dynamometer Bldg.	Motor Oil	3	B
Site Services	KWhitehead	Project Storage Bldg.	Lube Oil	16	D

Other Storage Areas - See Table 2

SP-2 DESCRIPTION OF STORAGE AREAS (Cont.)

- Knock-out vessels for vacuum pump oil mist. (Area C - Polymers Plant)

Several knock-out vessels are located in the polymers Plant and are designed to capture oil mist carry-over from the polyol process vacuum pumps. Waste oil collected in the knock-out vessels drains to 55-gallon drums. All of the drums storing waste oil in the Polymers Plant are provided with secondary containment such that any potential leaks or spills would be confined to the immediate area.

- Drummed oil storage are for lube oil kerosenes. (Area D)

This storage area is located at the approximate center of the BASF site (i.e., the intersection of Chippewa Street and Alkali Street). The inventory of lube oil and kerosene in this area normally amounts to approximately sixteen (16) 55-gallon drums. This storage area consists of an enclosed structure with a curbed concrete floor of sufficient capacity to contain any potential leaks or spills.

A list of oil-filled electrical transformers at BASF is presented in Table 2. The liquid materials in all of these equipment have been analyzed and found to contain less than 40 parts per million of polychlorinated biphenyls.

**TABLE 2
OIL FILLED ELECTRICAL EQUIPMENT**

PAGE 2 OF 4

PLANT (LOCATION)	SERIAL NO.	VOLUME (GAL)	SECONDARY CONTAINMENT?	FLUID TYPE	STATUS*
POLYOLS, EAST RIVER PUMPHOUSE TRANSFORMER	79389	285	NO	MINERAL OIL	OUT OF SERVICE
POLYOLS, WEST RIVER PUMPHOUSE TRANSFORMER	79390	285	NO	MINERAL OIL	OUT OF SERVICE
POLYOLS, EAST RIVER PUMPHOUSE TRANSFORMER	R275234A	167	YES	SILICONE	IN SERVICE
POLYOLS, WEST RIVER PUMPHOUSE TRANSFORMER	PFA3767-0101	260	YES	SILICONE	IN SERVICE
SHAWNEE EAST SUBSTATION	B499166	450	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	BE538	440	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	BE537	440	NO	MINERAL OIL	OUT OF SERVICE
CHEM ENG SUBSTATION	YDR46371	219	NO	MINERAL OIL	IN SERVICE
PILOT PLANT SUBSTATION	B325122	460	NO	MINERAL OIL	IN SERVICE
MAIN OFFICE EAST OF PARKING LOT	H9H1016	162	NO	MINERAL OIL	OUT OF SERVICE
MAIN OFFICE EAST OF PARKING LOT	Q105417-TWG	210	YES	MINERAL OIL	IN SERVICE
RESEARCH PRI. TRANS. EAST SIDE OF BLDG. 55H	90-467-0	350	YES	MINERAL OIL	IN SERVICE
RESEARCH SEC. TRANS. BASEMENT OF BLDG. 55H	M125606	136	INDOORS	SILICONE	IN SERVICE
SANITARY SUB PRI. TRANS. EAST SIDE OF BLDG. 54V	E692338	320	NO	MINERAL OIL	IN SERVICE

* OUT OF SERVICE EQUIPMENT TO BE DISPOSED OF DURING 1994

**TABLE 2
OIL FILLED ELECTRICAL EQUIPMENT**

PAGE 3 OF 4

PLANT (LOCATION)	SERIAL NO.	VOLUME (GAL)	SECONDARY CONTAINMENT?	FLUID TYPE	STATUS*
SANITARY SUB SEC. TRANS. EAST SIDE OF BLDG. 54V	1674026	308	NO	MINERAL OIL	IN SERVICE
GRAPH POLYOL SUBSTATION SOUTH EAST OF BLDG. 60X	79249	222	NO	MINERAL OIL	IN SERVICE
POLYOL POND PUMP TRANS WEST SIDE OF POLYOL POND	5006063	333	NO	MINERAL OIL	IN SERVICE
EPC SUB WEST SIDE OF BLDG. 60C	79567	215	NO	MINERAL OIL	IN SERVICE
EPC EXPAN. EAST TRANS. SOUTH SIDE OF BLDG. F1A	PYE-0458	350	YES	MINERAL OIL	IN SERVICE
EPC EXPAN. WEST TRANS. SOUTH SIDE OF BLDG. F1A	PYE-0457	407	YES	MINERAL OIL	IN SERVICE
VITAMINS SUB VIT E TRANS. SOUTH SIDE OF BLDG. 61P	PAV385301	260	NO	MINERAL OIL	IN SERVICE
VITAMINS SUB VIT A TRANS. SOUTH SIDE OF BLDG. 61P	98303	248	NO	MINERAL OIL	IN SERVICE
URETHANE APPLICATIONS IN BLDG. 55L	97210	265	INDOORS	SILICONE	IN SERVICE
PLASTIC APPLICATION CENTER IN BLDG.	M163043	222	INDOORS YES	SILICONE	IN SERVICE
ELASTOCELL NORTH SIDE OF BLDG. 62C	570001001	381	YES	MINERAL OIL	IN SERVICE
ADHESIVES WEST SIDE OF BLDG. C1C	M154085	237	YES	MINERAL OIL	IN SERVICE
OTTAWA SUB NORTH TRANS. IN BLDG. 58K	M155257A	211	INDOORS	SILICONE	IN SERVICE
OTTAWA SUB SOUTH TRANS. IN BLDG. 58K	M155257B	211	INDOORS	SILICONE	IN SERVICE

* OUT OF SERVICE EQUIPMENT TO BE DISPOSED OF DURING 1994

**TABLE 2
OIL FILLED ELECTRICAL EQUIPMENT**

PAGE 4 OF 4

PLANT (LOCATION)	SERIAL NO.	VOLUME (GAL)	SECONDARY CONTAINMENT?	FLUID TYPE	STATUS*
POLYOL TRUCK SCALE ON POLE EAST OF SCALE	78A502742	12	NO	MINERAL OIL	OUT OF SERVICE
POLYOL ROADWAY LIGHTING ON POLE EAST OF BLDG. 60W	1311774	6	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#1 EAST	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#1 CENTER	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#1 WEST	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#2 EAST	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#2 CENTER	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#2 WEST	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#3 EAST	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#3 CENTER	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#3 WEST	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#4 EAST	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#4 CENTER	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#4 WEST	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#5 EAST	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#5 CENTER	10	NO	MINERAL OIL	OUT OF SERVICE
SHAWNEE EAST SUBSTATION	OCB#5 WEST	10	NO	MINERAL OIL	OUT OF SERVICE

* OUT OF SERVICE EQUIPMENT TO BE DISPOSED OF DURING 1994

**TABLE 2
OIL FILLED ELECTRICAL EQUIPMENT**

PAGE 5 OF 4

PLANT (LOCATION)	SERIAL NO.	VOLUME (GAL)	SECONDARY CONTAINMENT?	FLUID TYPE	STATUS*
TPU SYN EAST SIDE OF TPU SYN BLDG.	R277596	211	NO	SILCONE	IN SERVICE
EPO BULK STORAGE FAC. ON POLE EAST OF BULK STORAGE FAC.	931096662	65	NO	MINERAL OIL	IN SERVICE
EPO BULK STORAGE FAC. ON POLE EAST OF BULK STORAGE FAC.	931096663	65	NO	MINERAL OIL	IN SERVICE
EPO BULK STORAGE FAC. ON POLE EAST OF BULK STORAGE FAC.	931096664	65	NO	MINERAL OIL	IN SERVICE
FIRE WATER POND EAST TRANS ON POLE WEST OF FIRE WATER POND	4056090190	18.5	NO	MINERAL OIL	IN SERVICE
FIRE WATER POND SOUTH TRANS ON POLE WEST OF FIRE WATER POND	4056090290	18.5	NO	MINERAL OIL	IN SERVICE
FIRE WATER POND WEST TRANS ON POLE WEST OF FIRE WATER POND	4056090390	18.5	NO	MINERAL OIL	IN SERVICE

* OUT OF SERVICE EQUIPMENT TO BE DISPOSED OF DURING 1994

All tanks, vessels, and transformers which contain oil at BASF are above ground and are constructed of materials compatible with the stored product. The tanks are of adequate structural design to withstand the temperatures, pressures and volumes expected during normal operating conditions.

Various inspection procedures are routinely conducted at BASF by maintenance, operating, safety, and Ecology Services Department personnel. Inspections tasks and testing procedures of specific concern to this SPCC Plan include the following:

- Visual examination of any accumulated rainwater in diked areas prior to draining
- Inspection of sumps, curbed areas, dikes and adjacent areas for evidence of leakage or spillage
- Visual examination of pipes, pipe supports, flange joints valve glands and bodies, catch cans, expansion joints, and oil handling equipment
- Visual examination of tank supports and foundations for signs of weakness or deterioration
- Hydrostatic pressure test on tanks and piping systems will be conducted if warranted by visual observations and past operating experiences
- Non-destructive shell thickness tests will be performed if warranted by the inspection and past operating experiences

At a minimum, monthly inspections are completed by operating personnel. A sample checklist is provided in Appendix A. If found to be necessary, inspections may be conducted more frequently at specific storage locations. Any deficiencies noted or corrective actions taken will be documented and documentation will be maintained within the respective units.

Tank liquid level sensing devices are regularly checked to insure proper operation. Operating log entries are compared to known consumption rates as an indication of level sensing inconsistencies.

Water accumulation in the secondary containment (i.e. diked) area surrounding a storage vessel will be frequently evacuated. This is particularly important during freezing weather. Prior to draining a containment area, the water will be visually inspected for discoloration, film, scum, or indications of oil. In addition, applicable inspection records and operating logs will be checked to determine the potential contamination in the water. If the water meets the visual appearance and record inspection criteria, it will be passed through a (normally closed) manual drain to the POTW sewer or to one of BASF's permitted NPDES outfalls.

Two items are of particular importance when a manual drain valve at a storage dike is opened:

1. The drain valve must be closed promptly after all water has been discharged.
2. A log entry must be made in the respective plant/department operating logbook:
 - a. The observed condition of the water (i.e., no scum, film, oil or discoloration) prior to draining.
 - b. The date and time of opening the drain valve.
 - c. The date and time of closing the drain valve.

Accumulated water in dike areas not equipped with manual drain valves will be visually examined as outlined above, and evacuated by portable pumps. All procedures will be appropriately logged.

If water in a diked area does not meet the visual appearance or record inspection criteria, it will not be discharged to the POTW sewer or an NPDES outfall. Samples of the water will be obtained and analyzed as necessary. After the water has been characterized, it will be disposed of in accordance with applicable regulatory requirements.

With the exception of the main boiler #6 Fuel Oil feed line, all pipes containing oil at BASF are located above grade and any leakage would be easily observed. The buried boiler feed line is in an underground concrete vault.

All batch transfer operations are performed with trained operations personnel present at all times. Continuous pumping and process operations are consistently monitored by electronic process instruments; any process alarm conditions are both visible and audible to process operations personnel. Minor leaks or drips are detectable by process operators during routine surveillance of the process system (several times per shift).

BASF truck (i.e. bulk) unloading procedures exceed the minimum requirements and regulations established by the U.S. Department of Transportation. All unloading operations are supervised by trained BASF personnel who are responsible for the following tasks:

- Verification of adequate tank capacity for the material and volume being delivered.
- Inspection of delivery truck equipment (e.g., leaks, worn hoses, etc.)
- Verification of proper connections, disconnections, and valve positioning before, during, and after unloading.
- Inspection of delivery tanker truck for leakage prior to authorization for departure.

BASF bulk truck and drum unloading procedures are located in Appendix B.

BASF's Wyandotte complex is secured by a six-foot high fence on the north, west, and south boundaries. The east side of the complex is immediately adjacent to the Detroit River. A security guard is on duty at the main entrance gatehouse 17 hours per day, five days per week. At night and on weekends site entry is limited to authorized personnel who enter using magnetic card system.

The complex is well lighted and many building have BASF personnel present 24 hours per day. Building which are not normally occupied are secured. Visitors to the complex must register arrival and departure in a log book and a BASF employee must escort the visitor for the entire period while on the property.

The Wyandotte City Police Department headquarters are located adjacent to the south side of the complex and assistance can be summoned immediately if required.

Plant management/supervisory staff for each facility listed on page 2 of this SPCC Plan are responsible to insure that process operators and other designated personnel at BASF are properly instructed in the operation and maintenance of equipment used to prevent/respond to accidental discharges of potentially polluting materials. This training includes instruction on applicable federal and state pollution control rules and regulations. A combination of classroom meeting and on-the-job training is employed to educate operators in safe methods of handling hazardous chemicals. New operators or supervisors are trained prior to assuming their responsibilities and do not work unsupervised until completion of training.

The Ecology Services Department is accountable for spill prevention at BASF and will regularly review local, state and federal environmental regulations. The Department is also responsible for keeping other site personnel appropriately informed of applicable information. Technical and trade publications will be reviewed for reports of spill incidents that occur in the chemical and related industries. New preventative measure and technologies will be investigated to upgrade current practices and spill control equipment. Spill prevention briefings are periodically scheduled by the Ecology Services Department for operating personnel to transfer newly acquired information and assure adequate understanding of the SPCC Plan.

Each unit handling oil or petroleum-containing material at the site has immediate access to an appropriate type and quantity spill control supplies and personal protective equipment to respond to an accidental spill or release. An ample supply of various spill control materials (e.g., adsorbents, shovels, etc.) and personal protective equipment are also maintained in the Central Storeroom (Area D in Figure I). If necessary, BASF can draw upon personal protective equipment (e.g., clothing, respirators, etc.) and its Maintenance Department for manpower and heavy equipment (e.g., bulldozers, front-end loaders, etc.).

Local contact services are also available in the immediate area for clean-up of major spills:

- Marine Pollution Control Corporation
8631 W. Jefferson Avenue
Detroit, Michigan 48209
(313) 849-2333
MID 049277718
- K & D Industrial Services
6470 Beverly Plaza
Romulus, Michigan 48174
(313) 729-3350
MID 072790710

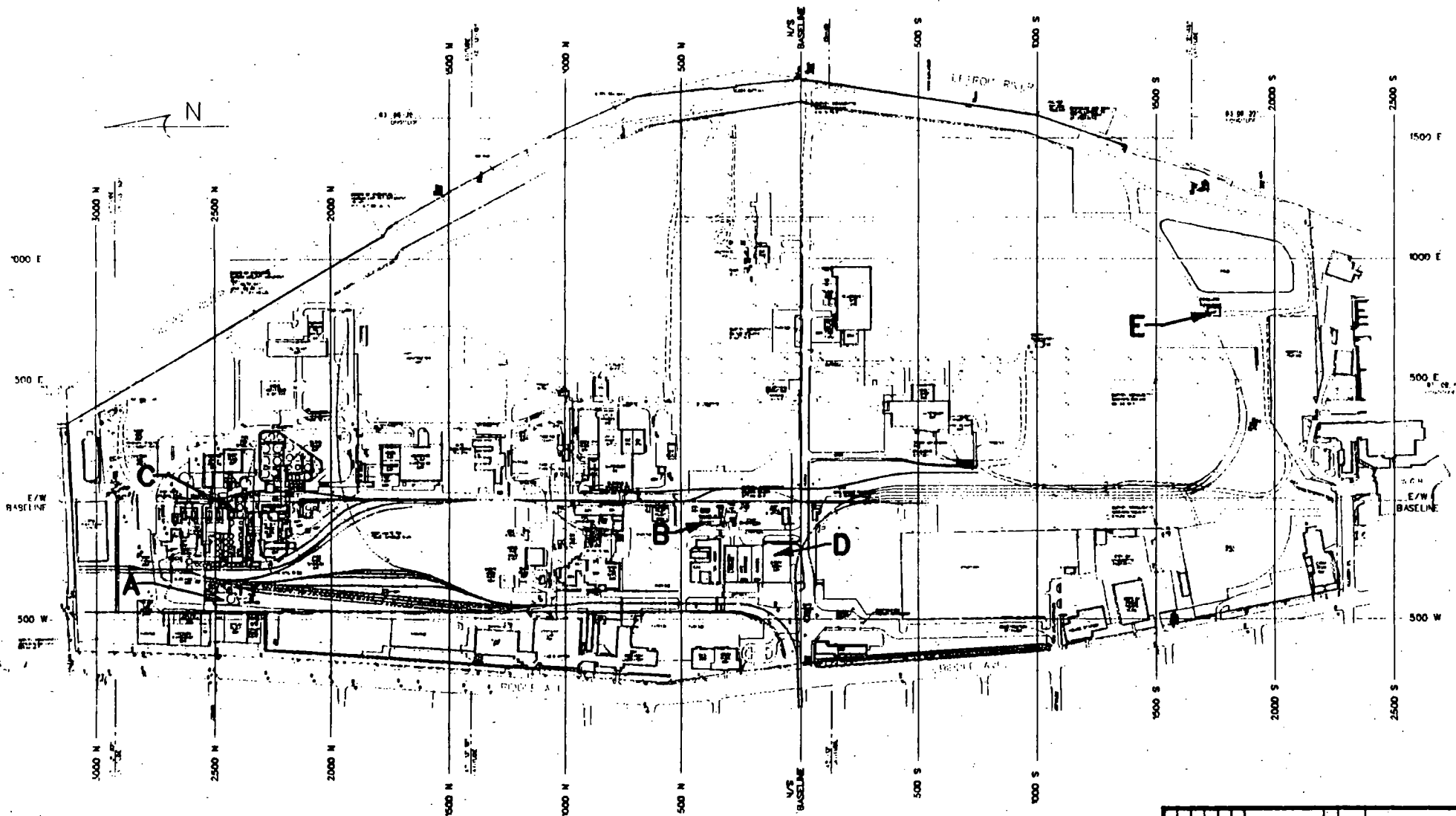
The above companies provide 24-hour service to contain clean-up liquid spills, including oil. Each have trained staff capable of utilizing an extensive array of equipment and supplies.

In the event that an oil spill or release does occur in an area that does not possess secondary containment (e.g., electrical transformers identified in Table I), all contaminated soils will be promptly cleaned-up and disposed of in accordance with applicable regulatory requirements. Upon completion of clean-up operations requiring use of BASF spill control materials, all equipment and supplies will be cleaned, reconditioned, or replaced for subsequent use.

SP-10 SPILL NOTIFICATION PROCEDURES (Cont.)

6. Description of facility;
7. A complete copy of this plan;
8. The cause of the spill;
9. Corrective actions and/or countermeasures taken;
10. Additional preventative measure taken or contemplated to minimize the possibility of recurrence.

Spills or release of hazardous materials (other than oil) with potential to impact the groundwater, surface waters, or air will be reported to MDNR as outlined in Appendix C. BASF will submit a written report to the MDNR within ten (10) day of the spill incident outlining the cause, method of discovery, and procedures utilized to remove the polluting material from the waters of the State of Michigan. Reporting requirements under these circumstances are detailed in the Pollution Incident Prevention Plan (PIPP) for the BASF Corporation - Wyandotte Facility.



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APPENDIX A
INSPECTION CHECKLIST

BASF CORPORATION
STORAGE TANK/AREA INSPECTION FORM

NAME OF STORAGE TANK/AREA _____

1) WATER IN CONTAINMENT AREA? YES _____ NO _____
AMOUNT OF WATER PRESENT _____
CONDITION OF WATER _____
(COLOR, FILM, SCUM, ETC.) _____
SAMPLES OBTAINED FOR
ANALYSIS BY LABORATORY? YES _____ NO _____

2) EVIDENCE OF LEAK OR SPILL? YES _____ NO _____
LOCATION OF LEAK/SPILL _____
(SUMP, STAINED AREA, ETC.) _____
NOTIFY PLANT SHIFT SUPVSR? YES _____ NO _____
SPILL CONTROL MATRLS NEEDED? YES _____ NO _____
BRIEF DESCRIPTION OF OTHER REQUIRED CONTROL MEASURES:

3) ANY PORTION OF STORAGE TANK OR
AREA IN NEED OF MAINTENANCE? YES _____ NO _____
(PIPING, JOINTS, VALVES, PUMPS, SUPPORTS, ETC.) _____
LOCATION REQUIRING ATTENTION _____

4) IS THERE A NEED FOR TESTING OF EQUIPMENT (E.G., HYDROSTATIC TEST)? YES _____ NO _____

5) ADDITIONAL OBSERVATIONS/COMMENTS _____

SIGNATURE OF INSPECTOR _____

DATE _____ TIME _____ AM/PM

APPENDIX B
BULK UNLOADING PROCEDURES

BASF CORPORATION

TRUCK UNLOADING PROCEDURES

- A. Bulk storage tanks at BASF will normally be kept near full to provide maximum product availability in case supply sources should be interrupted.
- B. Record tank levels on appropriate log sheet.
- C. Notify appropriate plant shift foreman when level in tank has dropped sufficiently to order additional fuel.
- D. Truck unloading operations shall only be supervised by personnel who are appropriately instructed and trained.
- E. Smoking, open flames, or equipment with spark-potential shall not be permitted near the unloading area unless hot work permit is in effect.
- F. Any discrepancies with carriers (other than private vendor trucks) either drivers or equipment should be reported to the Transportation office.

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BULK TANK TRUCK UNLOADING PROCEDURES

1. When bulk tank arrives, check the following:
 - a) Has truck weighed in?
 - b) Is truck delivering appropriate material for the location?
 - c) Is sufficient room available in tank to contain volume of material being delivered?
 - d) Is tank pipeline strainer clean and ready for use?
 - e) Is truck equipped with pump or must BASF pump be used? (truck pump is preferred choice)
 2. Valve at hose connection should be in closed position.
 - a) If truck pump is to be utilized, close the pump suction and discharge valves; open the pump by-pass valve.
 - b) If BASF pump is to be utilized, open the pump suction and discharge valves; close the pump by-pass valve.
 3. Check totalizer meter at tank if meter is on the tank and record reading.
 4. Insure truck is accurately spotted at proper location.
 5. If all step "(1)" conditions outlined above are satisfactory, give the driver OK to hook up his unloading hoses. It is driver's responsibility to connect his hoses to BASF pipeline, open the valve on BASF pipeline, unload the truck contents, close the valve on BASF pipeline when complete, and make all disconnections. He will start and stop unloading pump (including BASF pump, if used).
 6. BASF is responsible for the following items:
 - a) Check the driver's set-up before giving OK to begin unloading truck contents into tank.
 - b) Periodically check progress of unloading process.
- ** If unloading is unusually slow, check/switch baskets at pipeline strainer.**

BASF Corporation
Bulk Tank Truck Unloading Procedures (cont'd)

7. When unloading is complete, record the following information in the log book:
 - a) Totalizer meter reading at tank, if meter is on the tank
 - b) Based upon totalizer meter reading, determine gallons of material delivered
 - c) Check to verify gallons delivered match truck meter reading regarding amount of fuel unloaded
 - d) Obtain empty truck weight after it has weighed out of BASF complex
 - e) New level of fuel in tank
8. Notify appropriate Plant Shift/Department Supervisor immediately if there are any discrepancies or problems with information obtained in step "(7)" above.
9. Check to be sure all valves in unloading system are closed and that all pumps are off.

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DRUM UNLOADING PROCEDURES

1. Insure truck trailer is accurately spotted in the proper location at the unloading dock with wheels chocked.
2. If necessary, compare the truck trailer number to the shipping papers to verify that the material in the trailer is what is expected to be received.
3. If invoice papers and truck contents are appropriate, commence unloading of drums.
4. Unloading of drums is to be accomplished utilizing proper drum handling equipment.
5. Place all unloaded materials in designated storage area(s).

APPENDIX C

SPILL NOTIFICATION PROCEDURES

(See SPB #5)